SFY 2009 Idaho State & Regional Substance Abuse Prevention Needs Assessment

Youth Substance Use in Idaho

Idaho residents use a number of different illicit substances. For Idaho's minor population, these substances include alcohol, smoking and smokeless tobacco, marijuana, cocaine, opiates, depressants, tranquilizers, hallucinogens, inhalants, methamphetamines, ecstasy, steroids, and over-the-counter and prescription medications. According to the Idaho Substance Use, Safety, and School Climate Survey (SUSSCS) administered by the Safe and Drug Free School office of the Idaho Department of Education, the three most common substances used by Idaho's minors are alcohol, tobacco, and marijuana. Of the more than 15,000 6th, 8th, 10th and 12th grade respondents to the SUSSCS in 2006, approximately 27% reported consuming alcohol in the 30 days prior to the survey. Thirteen percent reported using tobacco in the prior 30 days and 10% indicated that they had used marijuana in the same time period. Nearly 11% of the respondents reported using two or three substances in the 30 days prior to the survey. When multiple substances were reported, the most common combinations were of alcohol, tobacco and marijuana, with alcohol involved in almost every case.

While other substances (e.g., methamphetamines) have received considerable attention within the media and state government, their use pales in comparison to the three dominant substances reported by Idaho's youth. The percentages of respondents reporting 30-day use of the most common substances are shown in Table 1. Because of alcohol's popularity among Idaho's teenagers and because it was almost always involved if more than one drug was reported, it was used as the primary indicator of substance use and substance abuse prevention need.

Table 1. Reported current substance use by 6th, 8th, 10th and 12th grade respondents on the 2006 Idaho Substance Use, Safety, and School Climate Survey

Substance	Percent of respondents reporting use in prior 30 days
Alcohol	27.5%
Tobacco	12.7%
Marijuana	9.7%
Methamphetamines	1.5%
Cocaine	2.0%
Ecstasy	2.1%

Idaho Trends

Statewide trends in substance use among Idaho teens are tracked by two federal agencies, the Substance Abuse Mental Health Services Administration (SAMHSA) and the Centers for Disease Control and Prevention (CDC). Substance use reported by school-aged youth is also tracked by the Idaho Department of Education. Each of these organizations conducts regular surveys with the goal of measuring substance use by minors. Results from each of these organizations are highlighted below.

SAMHSA and the National Survey on Drug Use & Health

Annually, SAMHSA conducts the National Survey on Drug Use & Health (NSDUH). Among other issues, the survey gathers data concerning substance use by household members throughout the United States. Starting in 2002, SAMHSA began providing state level estimates of substance use by age group. SAMHSA combines two years of data into a single number and divides the respondents into three categories by age, 12-17, 18-25, and 26 and older. Since 2002, four substance use estimates based on 2002/2003, 2003/2004, 2004/2005 and 2005/2006 are available. The data in Table 2 show the Idaho NSDUH 30-day substance use rates for individuals 12-17 years old. Although the trends are encouraging, it is unlikely that the differences are statistically significant.

Table 2. Idaho NSDUH 30-day substance use rates for individuals 12-17 years old.

	Survey Years			
Substance	2002/2003	2003/2004	2004/2005	2005/2006
Alcohol	17.37%	17.21%	15.88%	16.14%
Tobacco	14.70%	14.51%	13.14%	12.45%
Marijuana	7.92%	7.29%	6.24%	5.91%

Centers for Disease Control and the Youth Risk Behavior Survey

The CDC has conducted the national Youth Risk Behavior Survey (YRBS) every other year since 1991. The YRBS surveys a representative sample of 9th, 10th, 11th, and 12th graders and monitors health risk behaviors in six categories:

- tobacco use;
- alcohol and other drug use;
- behaviors that contribute to unintentional injuries and violence;
- sexual behaviors that contribute to unintended pregnancy and STDs, including HIV infection;
- unhealthy dietary behaviors;
- physical inactivity.

Idaho has participated in the YRBS for six of the nine years it has been administered. Changes in use rates of tobacco, alcohol and other drugs over those survey epochs provide valuable insight into substance use trends by Idaho's teenagers. It should be noted that the 2003 survey data show reductions in use rates relative to the 2001, 2005 and 2007 data in many grades and for many substances. This may reflect a genuine drop in reported substance use in 2003. It is unclear, however, what might account for this change. These reductions stand-out because rates in 2005 appear to return to 2001 levels. For example, 10th and 12th grade alcohol use in 2005 are comparable to those in 2001.

YRBS Current Users

The YRBS asks respondents to report if they have used substances in the 30 days prior to completing the survey and terms positive respondents "current substance users". Because Idaho did not gather data in 1995, 1997 and 1999, there are gaps in the survey data. Data from the 1991 and 1993 surveys have been included to provide some historical context. It is important to note that the percentage of Idaho teens that reported substance use was below the national average for alcohol, cigarettes, marijuana and cocaine for all of the survey years (see Table 3).

Table 3. Idaho and national youth reported current substance use rates as measured by the YRBS.

	Substances							
	Alcohol		Cigarettes		Marijuana		Cocaine	
Year	Idaho	US	Idaho	US	Idaho	US	Idaho	US
1991	42.2	50.8	23.3	27.5	10.2	14.7	NA	1.7
1993	43.6	48.0	27.3	30.5	13.0	17.7	2.8	1.9
2001	40.6	47.1	19.1	28.5	17.5	23.9	3.2	4.2
2003	34.8	44.9	14.0	21.9	14.7	22.4	2.0	4.1
2005	39.8	43.3	15.8	23.0	17.1	20.2	2.4	3.4
2007	42.5	44.7	20.0	20.0	17.9	19.7	3.8	3.3

YRBS Alcohol

Data from the five surveys starting in 1991 show there has been little change in percentage of current alcohol users among Idaho's youth. In 2001, 40.6% of all respondents reported alcohol use in the prior 30 days (current youth alcohol users). In 2003, this percentage dropped to 34.8% and increased to 39.8% in 2005. The most recent data demonstrated a modest increase to 42.5% in 2007, which is still lower than the national average. The percentage of current alcohol use by grade and survey year is shown in Figure 1 and Table 3. The apparent absence of stable change in the past 14 years suggests that use rates are unlikely to change easily.

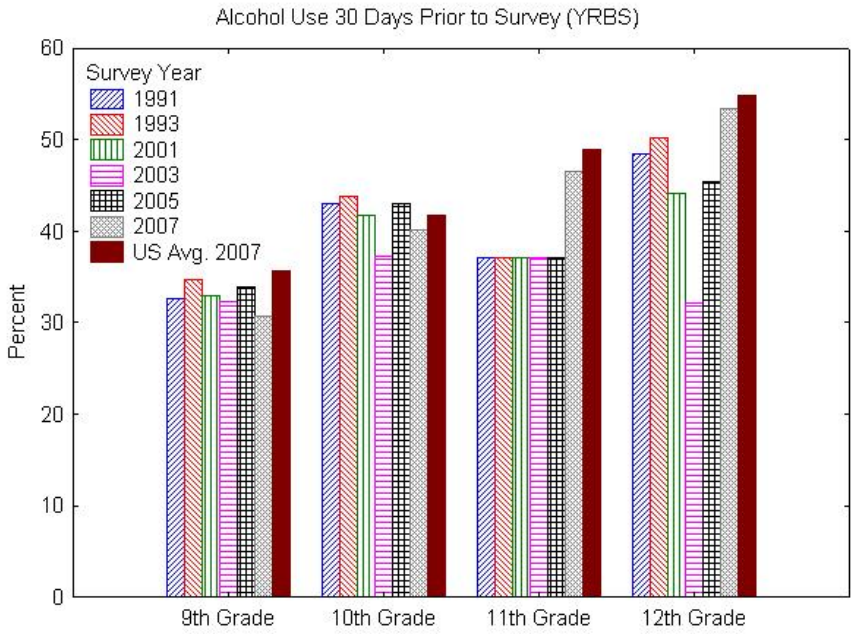

Figure 1. Current alcohol users as measured by alcohol use 30 days prior to the survey.

YRBS Cigarettes

Since the early 1990s, the percentage of current cigarette users among Idaho youth dropped dramatically. Between 2001 and 2003, the percentage of cigarette users dropped about 3% but rose again in the 2005. The difference between 2003 and 2005 rates was not statistically significant. Figure 2 shows the percent of current cigarette smokers by grade and survey year. The impact of tobacco prevention efforts and a reduction in the acceptability of tobacco use beginning in the 1990s is reflected in the reduction in use rates.

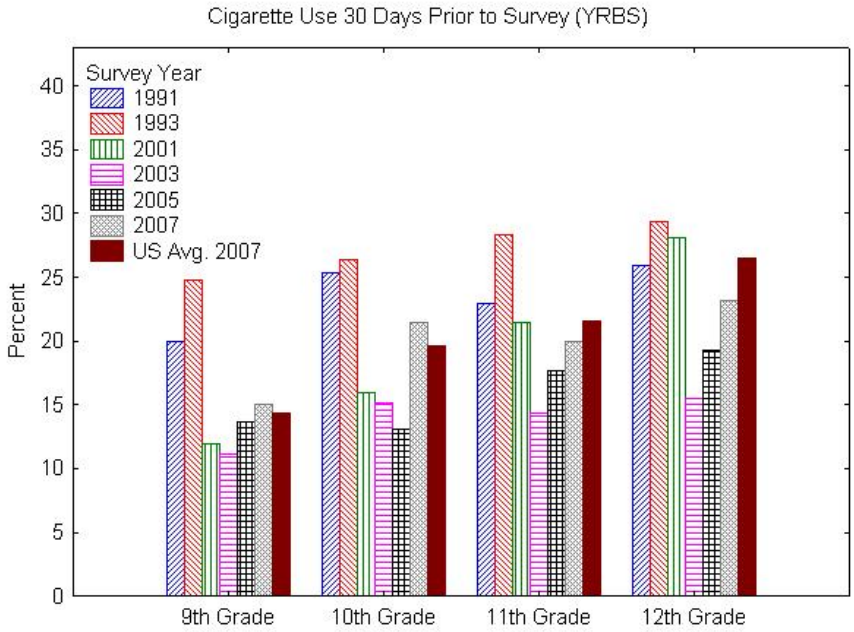

Figure 2. Percent of YRBS respondents reporting cigarette use 30 days prior to the survey.

YRBS Marijuana

Compared to data from 1991, the percentage of marijuana use among youth has increased. This increase might reflect an increased availability and mirrors the national trend. In every survey year, however, Idaho youth report less marijuana use than the national rate. In the two most recent survey years, the overall percentage of current marijuana users has not changed significantly despite a decrease in 2003 (see Table 3 for percentages). The dip in use rates is dramatic for 11th and 12th graders between 2001 and 2003, but there is a considerable increase from 2003 to 2005 for 12th graders (see Figure 3).

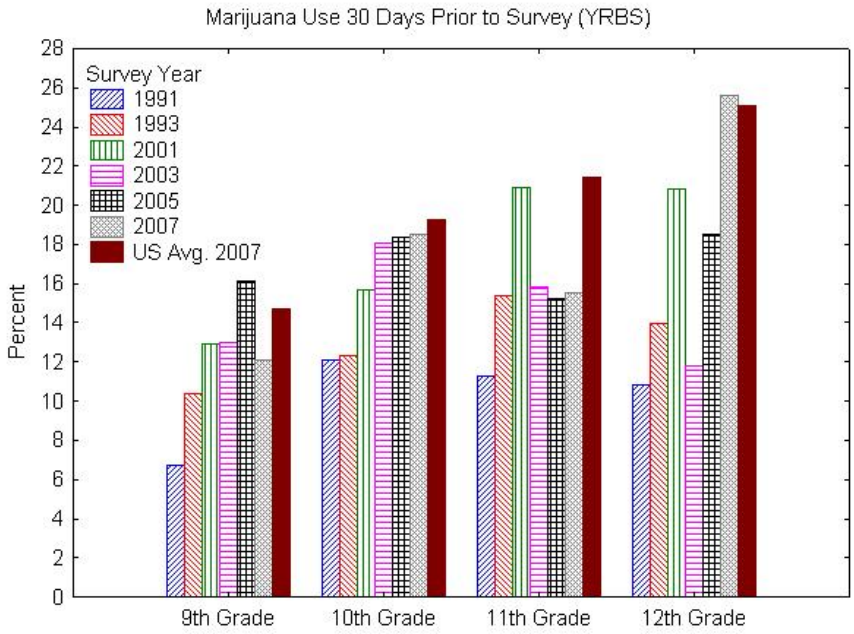

Figure 3. Percent of respondents reporting marijuana use 30 days prior to the survey.

YRBS Cocaine

The percentage of current cocaine users has varied from 2 to 3.2% since 1993. Data for 1991 were not available. For grades 9 through 11, the rate remained at or under 2% in 2003 and 2005. For respondents in the 12th grade, however, the 2003 rate was just above 2% but increased to over 5% during the 2005 survey. With this exception, the rates since 2001 have been generally lower. Figure 4 shows the percent of current cocaine users by grade and survey year.

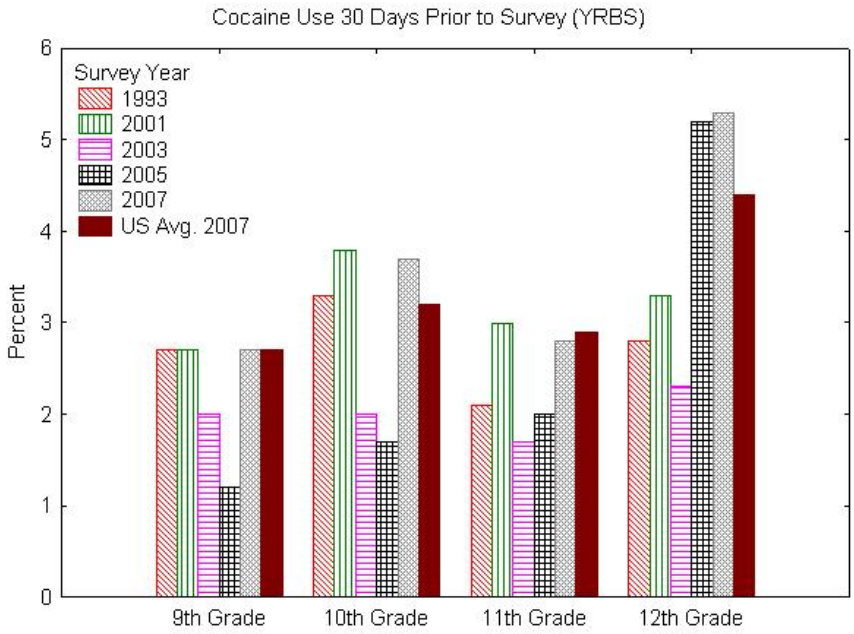

Figure 4. Percent of YRBS respondents reporting cocaine use 30 days prior to the survey.

YRBS Methamphetamine

The YRBS does not assess 30-day methamphetamine use. It does ask about lifetime use (see Figure 5). For all but the 11th grade methamphetamine use has decreased since 2001. For all grade levels reported lifetime methamphetamine use is lower than the national rates (see Table 4).

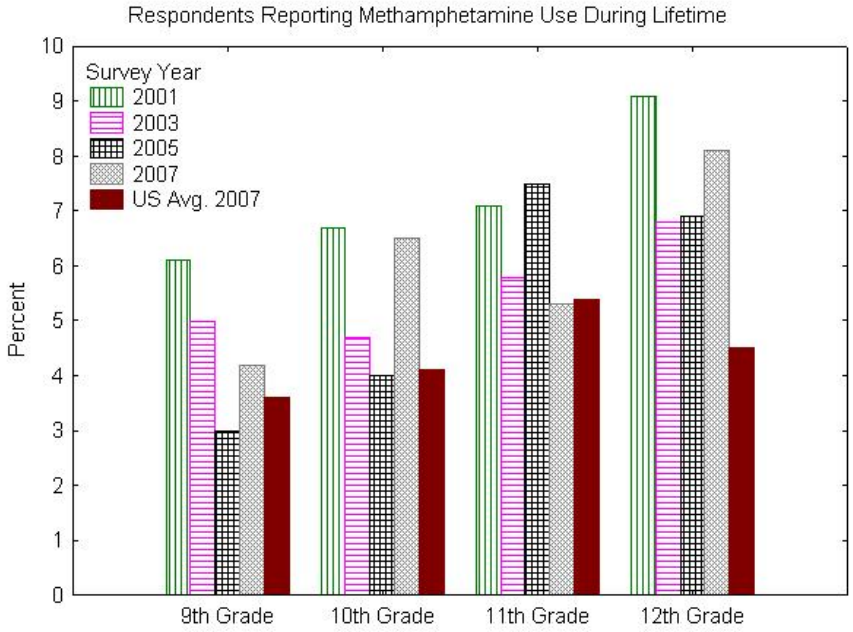

Figure 5. Lifetime use of meth by year and grade as reported by the YRBS.

Table 4. Percentage of YRBS respondents reporting lifetime methamphetamine use for Idaho and the nation.

Survey Years							
2001		2003		2005		2007	
Idaho	US	Idaho	US	Idaho	US	Idaho	US
7.2	9.8	5.6	7.6	5.3	6.2	6.4	4.4

YRBS Summary

Since the 2001 survey, reductions in all four substances can be seen in the 2003 results. Any reduction that might have occurred in 2003 appears to have been lost in 2005. 2005 data for alcohol and marijuana are comparable to data gathered in 2001. In fact a statistical comparison of the 2003 and 2005 data for the above substances across all grades shows no statistically significant change. Recent efforts to curb alcohol, tobacco, marijuana, and cocaine use by Idaho teens are difficult to detect in the YRBS data.

Idaho Substance Use, Safety, and School Climate Survey

The SUSSCS has been administered by the Idaho Department of Education every other year since 1996. As with other substance use surveys, the SUSSCS asks respondents to report the use of substances in the 30 days prior to the survey. Similar to other surveys, alcohol use reported on the SUSSCS co-occurs with and overshadows other substances and serves as a relatively clean

indicator of individual tendency towards substance use. Figure 6 shows the percentage of respondents who reported alcohol use at least once in the 30 days prior to completing the survey (i.e., current users). The graph shows these data for grades 6, 8, 10, and 12 for the six years the survey data are available.

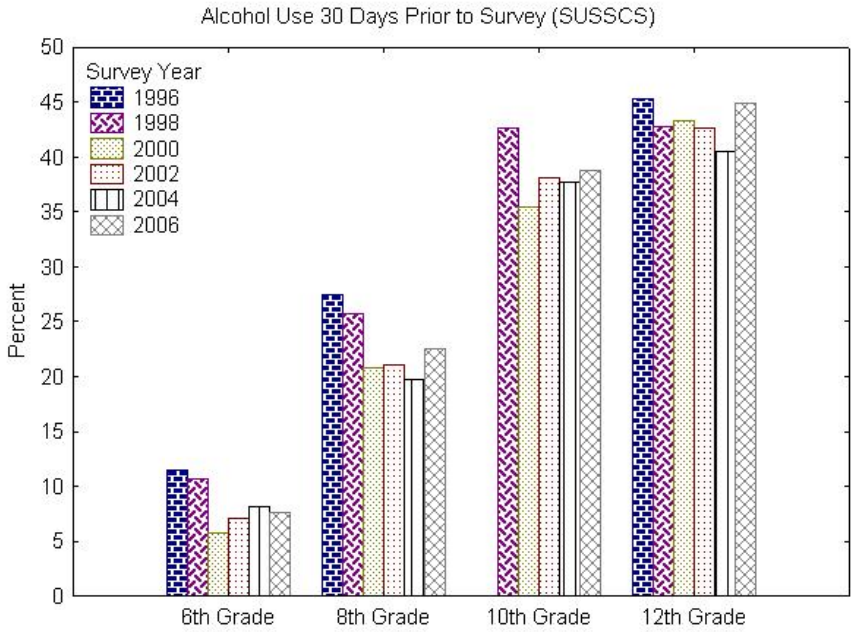

Figure 6. Percent of SUSSCS respondents reporting alcohol use 30 days prior to completing the survey.

Although there has been some variability, the percent of current alcohol users has dropped from the highest values obtained in 1996. This is particularly the case for respondents in the 6th, 8th and 10th grades. For these grades the reductions are prominent following the 1998 survey. The rate of reduction for 12th graders, however, appears to drop more slowly, less than 5% since 1996.

The SUSSCS gathers data concerning the 30-day use of other drugs (e.g., tobacco, marijuana, cocaine, methamphetamines, and ecstasy) but the data for these drugs are not presented in a manner that allows an analysis over the survey years.

Alcohol Use by County

None of the statewide surveys discussed above were designed to provide county level data. Although the SUSSCS surveys a large number of students, its sampling method is not focused at the county level. In the 2006 survey, for example, no students were sampled in Bear Lake, Blaine, Camas, Clark, Jerome, or Washington counties. Another characteristic of the SUSSCS is that it does not consistently sample grades in each school. Although the survey was not specifically designed for a county level analysis, it is the single best source of information concerning substance use by Idaho minors. Data from the SUSSCS are used as the basis for county level estimates of alcohol use. This process, however, comes with notable limitations.

Caveats

Given the repurposing of the SUSSCS data from a school district to a county level, any interpretation must be carefully weighed by the methods used. School district data were averaged into county level estimates of substance use. When viewed at a county level,

there were instances of missing data or small sample sizes. When a county datum was missing, it was replaced with the statewide average for that grade. When a sample size was thought to be prohibitively small it was compared to an arbitrary sample size of 30 and to an estimated sample size based upon a predetermined confidence interval. If the sample size did not exceed the estimated sample size and was less than 30, the statewide average for that variable was substituted. Regrettably, no single method of data substitution was completely satisfactory.

SUSSCS Current Alcohol Users

Responses to the SUSSCS regarding 30-day alcohol use were used to create a statewide metric of substance use (i.e., current alcohol users). A weighted 30-day alcohol use metric was calculated using SUSSCS data and school population data. The resulting variable combined data from all grades surveyed into one measure. It can best be interpreted as the percentage of current alcohol users in the 6th, 8th, 10th and 12th grades. As was the case with the YRBS, this weighted 30-day alcohol use variable will be referred to as "current alcohol users." Not all county and grade combinations were surveyed by the SUSSCS. When missing grade data were encountered, the appropriate statewide average for that grade was used. The data were then summarized by county (see Table 5 and Figure 7). At best, these values should be viewed as rough rankings.

Table 5. Current youth alcohol use by county for 2006 SUSSCS survey sorted from lowest to highest.

County	Percent	County	Percent	County	Percent
Fremont	13.9%	Bear Lake	27.5%	Kootenai	30.0%
Oneida	13.9%	Blaine	27.5%	Twin Falls	30.3%
Jefferson	14.0%	Camas	27.5%	Shoshone	30.6%
Caribou	16.2%	Clark	27.5%	Benewah	30.8%
Bingham	17.6%	Jerome	27.5%	Power	30.9%
Bannock	20.1%	Washington	27.5%	Minidoka	31.0%
Elmore	20.4%	Gem	27.5%	Valley	31.7%
Cassia	20.5%	Gooding	27.8%	Ada	32.8%
Madison	21.9%	Butte	27.9%	Nez Perce	33.3%
Bonneville	22.6%	Custer	28.5%	Idaho	35.5%
Lincoln	23.3%	Teton	28.6%	Bonner	38.2%
Payette	23.3%	Boundary	28.7%	Lemhi	38.5%
Franklin	24.6%	Lewis	29.1%	Clearwater	40.5%
Latah	25.7%	Adams	29.3%	Boise	51.0%
Canyon	26.2%	Owyhee	29.4%	**State Average**	**27.5%**

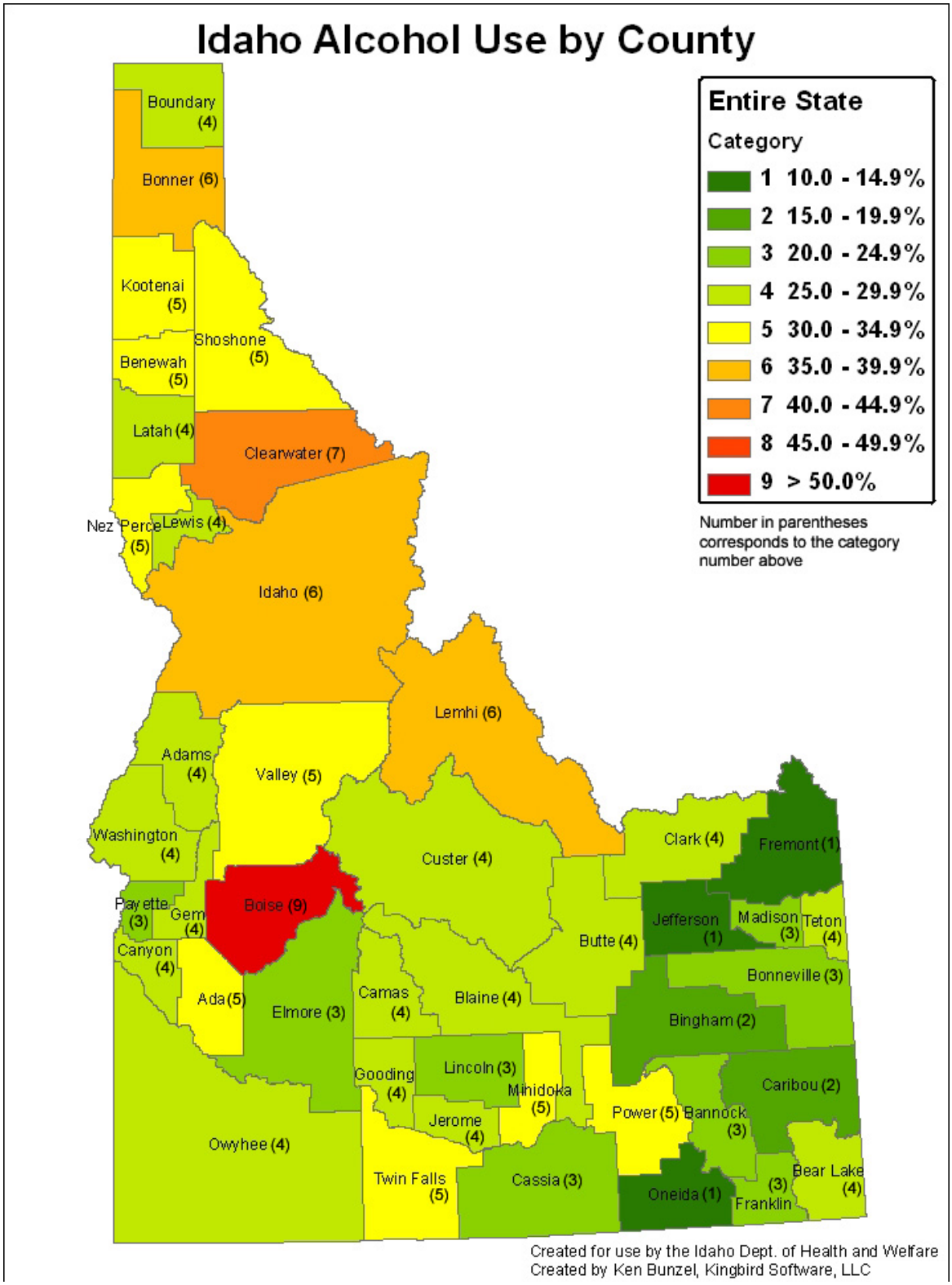

Figure 7. Percentage of current youth alcohol users by county as derived from the 2006 SUSSCS. The statewide average was 27.5%.

Substance Use Correlates

Research on adolescent substance use has focused on the relationship between characteristics of individuals and the environments where they live. David Hawkins, Richard Catalano, and Janet Miller reviewed the research literature to identify what they called risk and protective factors. This work was later described in a 1992 book entitled, Communities that Care: Action for Drug Abuse Prevention. These factors are divided into four separate categories: Individual / Peer, Family, School, and Community.

A variety of individual / peer, family, school, and community factors were found to be related to substance use by Idaho minors. Variables representing each category of risk and protective factors were obtained and summarized by county. The data were then correlated with current alcohol use. As has been shown in prior research, many of the variables displayed significant correlations.

Caveats

Researchers use a variety of methods when studying the relationships between substance use and risk and protective factors. In the ideal cross-sectional study, data from a single point in time would be gathered and analyzed. Although gathering data from a common timeframe is getting easier with time, differences occur. For example, most housing related data were gathered during the 2000 census. Differences in when data are collected should always be considered when interpreting correlations. This consideration should go beyond the inherent limits in correlational research.

As with all correlations, a relationship between two variables does not imply causation. Just because measures of economic deprivation are correlated with current alcohol use, it is not possible to conclude that economic deprivation causes alcohol use. If economic deprivation caused alcohol use among minors, underage drinking should be virtually absent in economically prosperous areas. This however, is not the case. It is also important to consider that the risk and protective factors are not mutually exclusive. It is likely that variables within any category will themselves be highly correlated. Although several community variables are correlated with current alcohol use, one should not conclude that these variables represent unique aspects of the community.

The risk and protective factor model common in the prevention literature was used to identify potential community, family, school and individual/peer data that might be correlated and therefore shed light on alcohol use by Idaho minors. Every reasonable effort was taken to find data representing the separate risk and protective factors categories. In some instances the available data matched a category well. In others, however, the categorization was not as clear. In these cases, the researchers placed the data in the category where it had the greatest consistency and meaning.

Finally, a variety of risk and protective factor variables, although correlated with youth reported alcohol use, cannot be readily influenced by substance abuse prevention services. The county birth rate is a prime example. For Idaho counties, county birth rates are significantly correlated with current alcohol use among respondents to the SUSSCS: as the birth rate in a county rises, youth reported alcohol use decreases. Substance abuse prevention services cannot directly influence the birth rate. However, the correlation between these two variables may reflect characteristics that might be amenable to prevention services.

Analysis Method

The SUSSCS contains many survey items regarding school climate and substance use. In an effort to reduce the number of individual data points, data from related or similar survey items were combined using factor analysis. Factor analysis is a data reduction technique that groups related survey items into common factors. The resulting factors are then interpreted and factor scores are created. For example, multiple survey items looking at student perception of drug availability would naturally cluster together because they examine different aspects of the same underlying factor.

The risk and protective factor data and the newly created factors from the SUSSCS were correlated with the current alcohol use data created from the SUSSCS at the county level. The data were not correlated at the region level because of the small number of counties in each region. The correlations are presented without considering how one risk or protective factor might be related to any of the others. A positive correlation shows a relationship whereas one measure increases, the other measure also increases. A negative correlation shows a relationship whereas one measure increases, the other measure decreases.

Factor Correlates

Individual / Peer Factors

Seven variables within this category were significantly correlated with the 2006 current youth alcohol use measure. Table 6 shows the correlations between individual/peer factors and current alcohol use.

Table 6. Correlations between individual/peer factors and current alcohol use.

County Level Variables	Correlation	County Level Variables	Correlation
Student Disapproval of Substance Use by Others	-.62	Substance Use by Friends	.54
Student Perception of Substance Use Risks	-.57	Driving While Impaired or Riding With an Impaired Driver	.62
Trouble or Arrests Caused by Substance Use	.34	Juvenile DUI Arrests	.31
Adult Drug Equipment Arrests	.26		

Family Factors

Four family related variables were significantly correlated with the 2006 current youth alcohol use measure. The significantly correlated variables and the direction and strength of the correlations are shown in the Table 7.

Table 7. Correlations between family factors and 2006 current alcohol use.

County Level Variables	Correlation	County Level Variables	Correlation
Parental Disapproval of Substance Use	-.61	Out of Wedlock Live Births	.56
Child Abuse and Protection Referrals	.38	Births to Mothers Who Smoke	.36

School Factors

Three school related variables were related to the 2006 current youth alcohol use rates. The significantly correlated variables and the direction and strength of the correlations are shown in the Table 8.

Table 8. Correlations between school factors and 2006 current alcohol use.

County Level Variables	Correlation	County Level Variables	Correlation
School Respect	-.35	Student Violence Indicators	.36
Average Daily School Attendance	-.35		

Community Factors

Of the many community-related variables examined, six had significant correlations with reported 2006 current youth alcohol use rates. The significantly correlated variables and the direction and strength of the correlations are shown in the Table 9.

Table 9. Correlations between community factors and 2006 current alcohol use.

County Level Variables	Correlation	County Level Variables	Correlation
Presence of Retail Alcohol	.35	County Birth Rate	-.56
Observed Weapon or Experienced Victimization with a Weapon	.36	Fatal Collisions Involving an Impaired Driver	.38
Unemployment Rate	.40	Children Under 6 Receiving Medicaid	-.31

Region 5 Current Alcohol Use

Figure 1 shows reported and estimated youth current alcohol use as derived from the 2006 SUSSCS and Table 1 outlines the sources of the estimates. "Current Youth Alcohol Use" is a weighted estimate that reflects the proportion of survey respondents reporting alcohol use in 30 days prior to completing the survey. Based on the 2006 SUSSCS, the state average percentage of current youth alcohol users among 6th, 8th, 10th and 12th grade students was 27.5%. While it is encouraging to see that a given county or region has lower reported youth alcohol use than the state average, it is important to remember that any alcohol use by minors under the age of 21 is illegal and that efforts to prevent the use of alcohol and other drugs should continue. Table 1 shows how data were estimated when a grade or an entire county was not included in the survey.

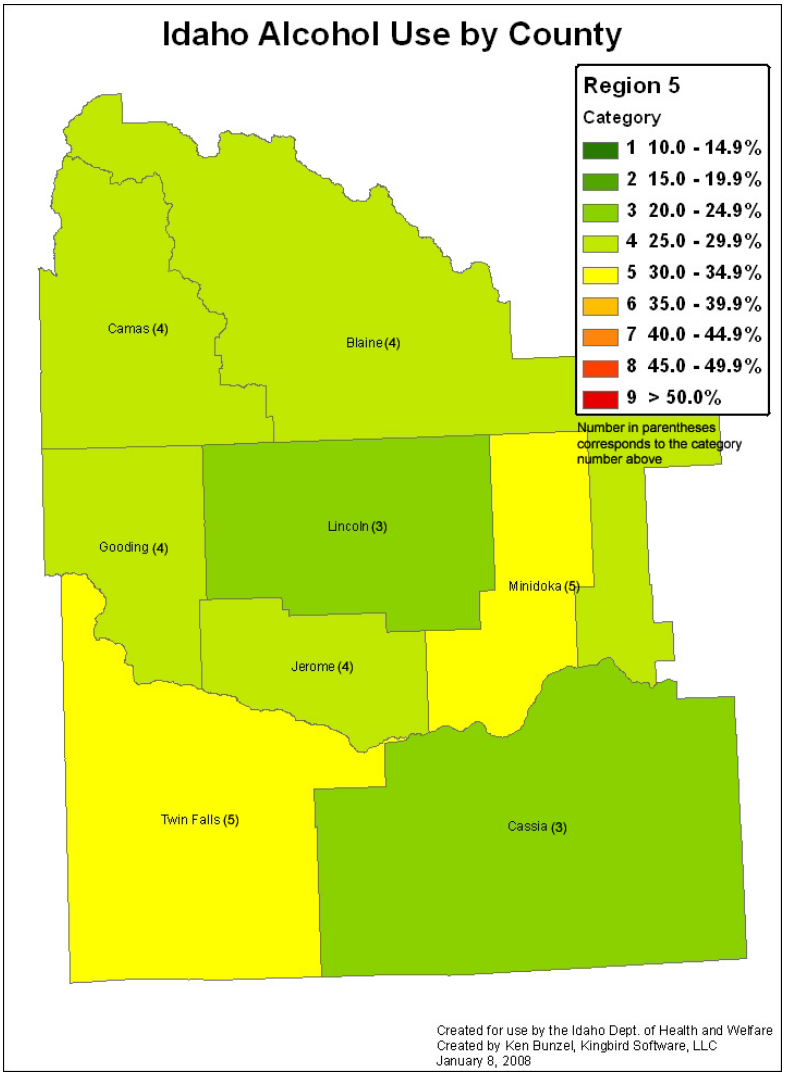

Figure 1. Current youth alcohol use by county. The state average percentage of current youth alcohol users was 27.5%.

Table 1. Sources of alcohol use by county and grade. An "R" indicates that reported data from the 2006 SUSSCS was used. An "S" indicates that a statewide average for that grade was used as the estimate.

	Grade			
County	6th	8th	10th	12th
Blaine	S	S	S	S
Camas	S	S	S	S
Cassia	R	R	R	R
Gooding	R	R	R	R
Jerome	S	S	S	S
Lincoln	R	R	R	S
Minidoka	R	R	S	R
Twin Falls	R	R	R	R

In the table, R indicates that survey data were used for the grade and county; S indicates that the state average was used because local data were not available. County estimates are weighted by the number of students during the year of the survey. Differences in the number of students can change the overall estimate of alcohol use between counties where all grade levels are estimated.

R5 Substance Use Correlates

A number of individual/peer, family, school and community factors were found to be significantly correlated with current alcohol use (see Table 6-Table 9 in the state portion of the needs assessment for individual factor correlations). The distribution of each of these archival variables is shown for the individual counties within the region. In each graph, the state average has been rescaled to 50 (represented by the line at 50) with a standard deviation of 15.

Individual/Peer Factors

A variety of individual/peer factors were significantly correlated with substance use. Many of these relationships are consistent with what might be expected. For example, students who report higher levels of alcohol use also indicate that their friends use substances. Similarly, students who report that they disapprove of substance use by their peers report lower levels of alcohol use themselves. The individual/peer factors include:

- Student Disapproval of Substance Use by Others
- Student Perception of Substance Use Risks
- Substance Use By Friends
- Driving While Impaired or Riding With an Impaired Driver
- Trouble or Arrests Caused by Substance Use
- Juvenile DUI Arrests
- Adult Drug Equipment Arrests

Student Disapproval of Substance Use by Others – Youth who disapprove of substance use by their peers are less likely to use alcohol and other substances themselves. Substance abuse prevention programs that teach healthy decision making and critical thinking skills, especially those that target elementary and middle school youth before experimentation has begun, can foster the disapproval of substance use.

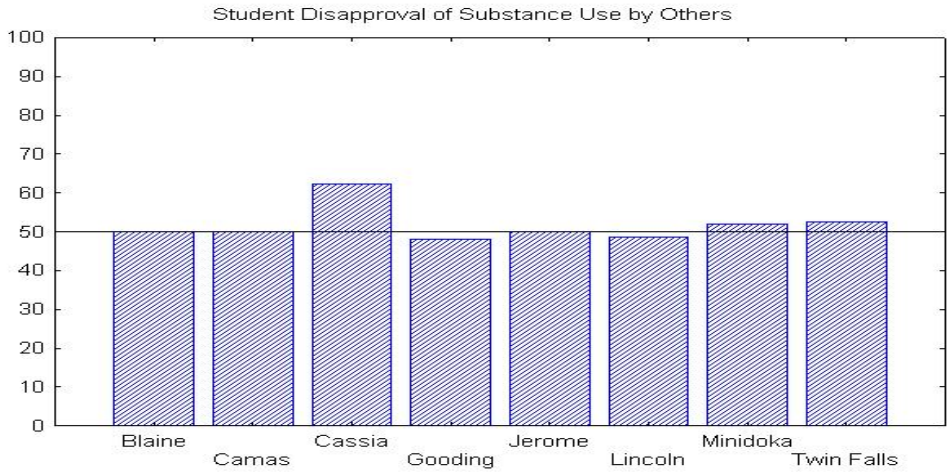

Figure 2. Student disapproval of substance use by their peers is negatively correlated with alcohol use. Students who disapproved of substance use by their peers reported lower alcohol use themselves in 2006.

Student Perception of Substance Use Risks – Youth who believe that substance use carries unacceptable risks or is harmful are less likely to use alcohol and other substances. Substance abuse prevention programs that teach healthy decision making and convey accurate risk information, especially those that target middle and early high school youth, can increase youth understanding of the risks of substance use and should result in lower use rates.

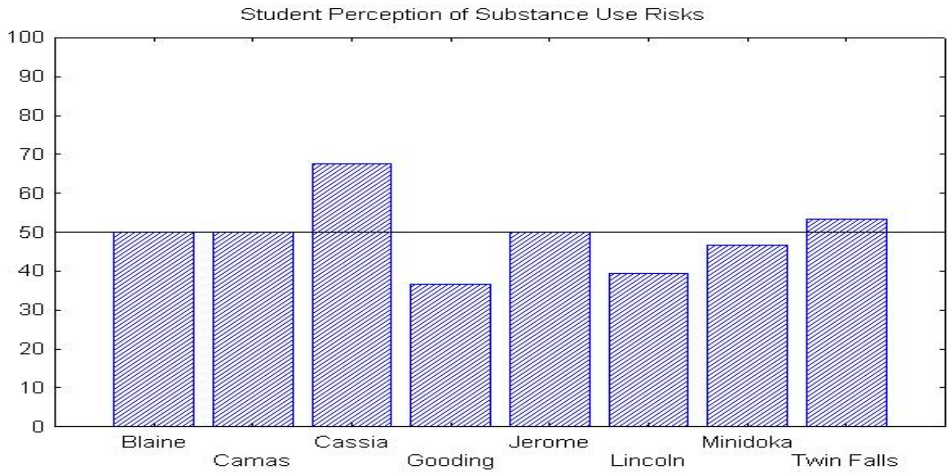

Figure 3. Student perception of substance use risk is negatively correlated with alcohol use. As perceptions of potential risk or harm from substance use increased, youth reported alcohol use decreased in 2006.

Substance Use By Friends – The influence of the peer group on adolescent decision making, including the decision to use substances, is one of the most powerful forces parents and teachers have to contend with. Parenting programs that stress the importance of being actively involved in the child's life, knowing where and whom the child is with at all times, and clear communication and enforcement of rules regarding acceptable friends and substance use can mitigate the influence of a negative peer group. Additionally, school and community programs that provide safe havens and prosocial activities can increase exposure to positive peer groups and adult role models and can lessen the influence of the negative peer group.

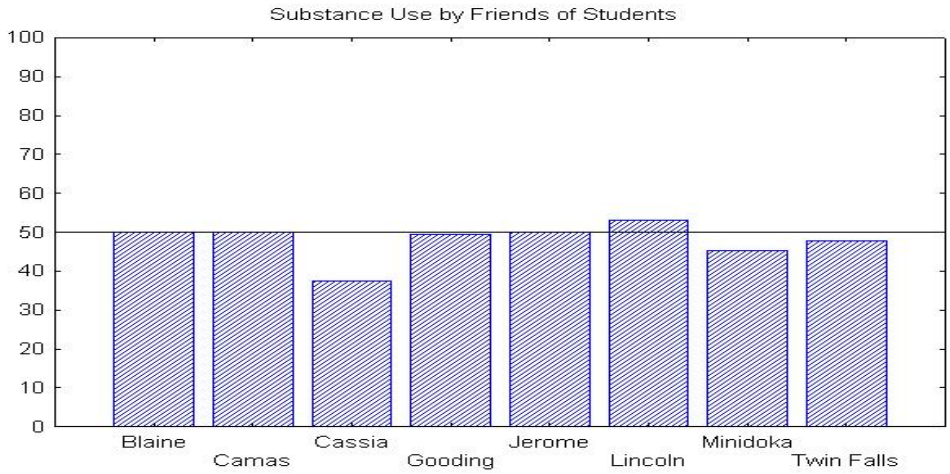

Figure 4. Substance use by friends is positively correlated with youth reported alcohol use. Students who reported that their friends used substances reported higher alcohol use for themselves in 2006.

Driving While Impaired or Riding With an Impaired Driver – Although substance use in itself contains hazards for youth, alcohol and other drugs played a role in nearly 8% of all vehicle collisions and just over 41% of vehicle related fatalities according to 2006 Idaho Transportation Department data. This is an avoidable risk. Substance abuse prevention programs, as well as community, health, law enforcement, and transportation agencies can all communicate this message. School, church and community programs can work to reduce alcohol availability and exposure and therefore reduce the opportunity for driving while impaired or riding with an impaired driver. Community coalitions can also play a role by working with local law enforcement and civic bodies to promote the message about the risks and costs of impaired driving and implement alcohol control strategies such as alcoholic beverage server training, sobriety check points, etc.

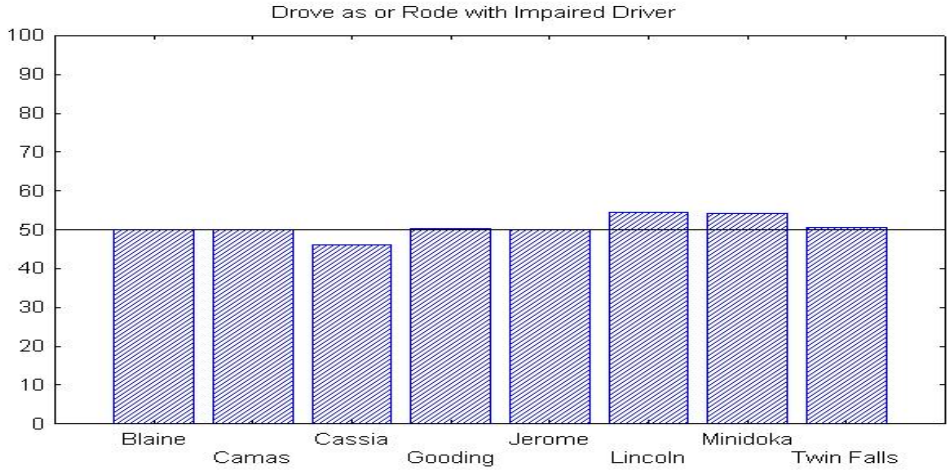

Figure 5. Driving while impaired or riding with an impaired driver was positively correlated with reported alcohol use. Students who reported driving while impaired or riding with an impaired driver reported higher alcohol use themselves in 2006.

Trouble or Arrests Caused by Substance Use – Because judgment is impaired by alcohol and other substance use, intoxicated people have a higher risk of behavior that brings scrutiny by parents, school, community and law enforcement personnel. Quality, evidence-based substance abuse prevention programs

delivered before adolescence can reduce the risk of arrest or other trouble by reducing the likelihood of substance use in general, and by increasing protective factors that include respect for self and others.

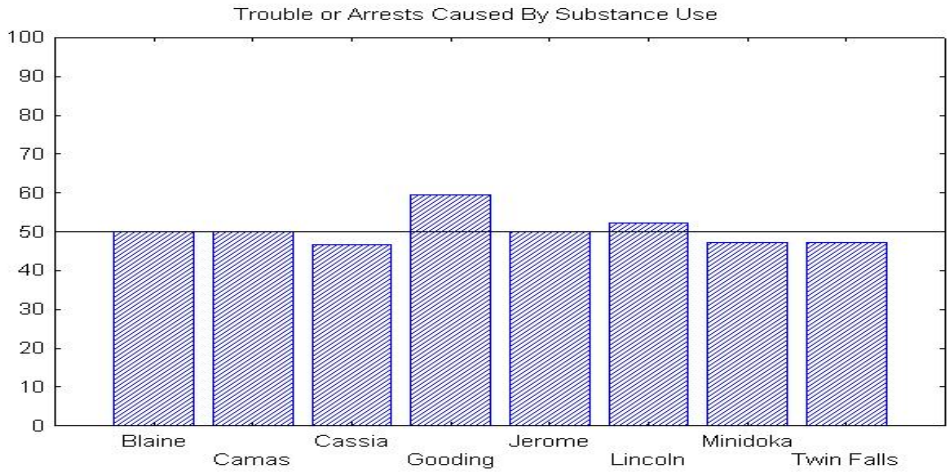

Figure 6. Instances of substance use related troubles or arrests were positively correlated with alcohol use. Students who reported higher levels of alcohol use also reported higher levels of trouble or arrests due to substance use in 2006.

Juvenile DUI Arrests – Youth who use alcohol and substances have an increased likelihood of being arrested for driving under intoxication (DUI). While the youth are at increased risk for being arrested for DUI, a higher DUI rate can be interpreted as a *protective factor* because it indicates that the police take an active role in reducing a very risky and preventable behavior. This has the effect of raising the juvenile DUI arrest rate. Substance abuse prevention programs, as well as community, health, law enforcement, and transportation agencies can all communicate the message about driving while intoxicated is unacceptable and will be prosecuted. Community coalitions can also play a role by working with local law enforcements efforts to reduce intoxicate driving, and providing public support when the police are criticized for enforcing underage drinking laws.

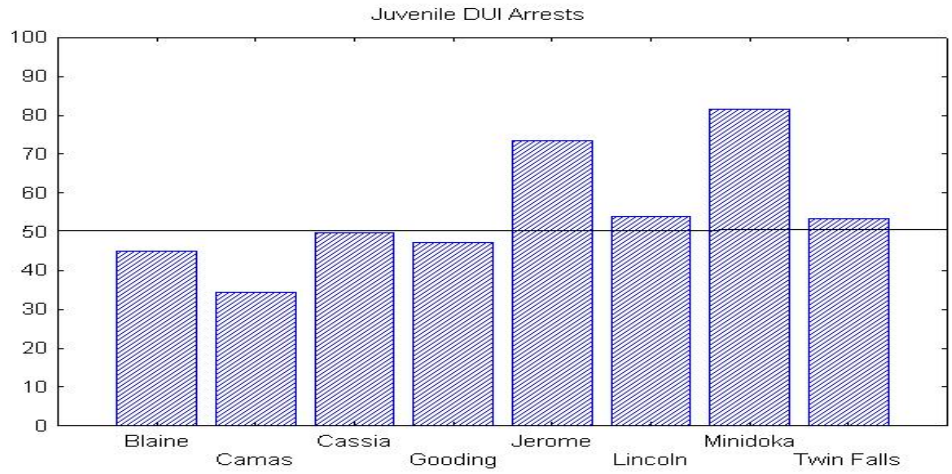

Figure 7. Juvenile DUI Arrests were positively correlated with youth-reported alcohol use. Counties where higher alcohol use was reported also had higher juvenile DUI arrests in 2006.

Adult Drug Equipment Arrests – A high rate of Adult Drug Equipment Arrests has several implications for youth drug and alcohol use. A higher drug equipment arrest rate suggests that drug use is more common in a community and that the youth have a higher risk of witnessing drug use. The high rate also suggests that law enforcement is vigilant and actively pursues criminal charges when paraphernalia is discovered, thus providing a protective factor for the community. Community coalitions can help by working reduce the availability of drugs and alcohol and the visibility of adult use in the community, and by working to establish less permissive attitudes about drug and alcohol use. Family and school prevention programs can play a crucial role in communicating no-use messages to youth.

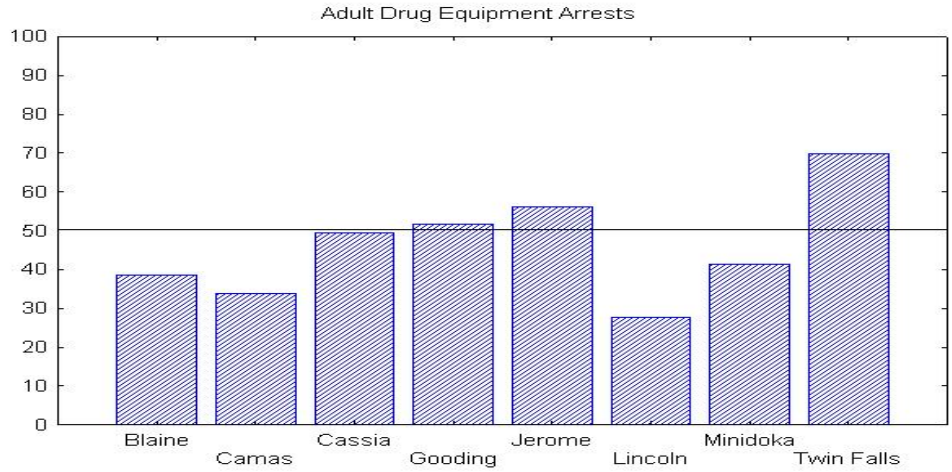

Figure 8. Adult Drug Equipment Arrests were positively correlated with youth-reported alcohol use. Youth in counties where there are more drug equipment arrests reported higher alcohol use.

Family Factors

Of the variety of possible family factors related to current youth alcohol use, the following were found to be significantly correlated. In the risk and protective factor literature, parental attitudes, particularly those that oppose substance use, are considered protective factors. Having children out of wedlock, on the other hand, is associated with increased alcohol use. Both of these relationships were observed in the Idaho SUSSCS data. Recent research has identified a surprising number of social and psychological disorders that occur at higher rates in youth whose mothers smoked while pregnant.

- Parental Disapproval of Substance Use
- Out of Wedlock Live Births
- Child Abuse and Protection Referrals
- Births to Mothers Who Smoke

Parental Disapproval of Substance Use – The impact of parental attitudes about teen substance use *and the communication of that disapproval* is one of the strongest protective factors that research has identified. Parenting programs that enhance family communications in general, and conversations about substance use in particular, can reduce the likelihood of youth substance use. In prevention, activities intended to raise community awareness and social norming programs can make parents aware of the importance of their role as substance abuse prevention educators.

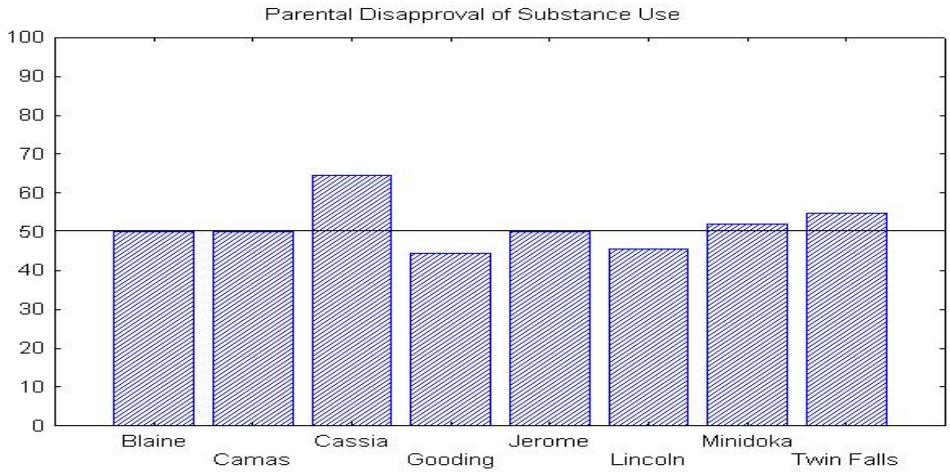

Figure 9. Youth perception of parental disapproval is negatively correlated with alcohol use. Students who reported that their parents disapprove of substance use reported lower alcohol use in 2006.

Out of Wedlock Live Births – The use of alcohol and other drugs lead to reduced judgment and decision making skills with a number of consequences, including unintended pregnancies. Counties with greater youth alcohol use have more out of wedlock live births, on average, than counties with lesser youth alcohol use. Substance abuse prevention programs that address healthy choices, good decision making and abstinence from alcohol and substance use can all reduce the likelihood of unplanned pregnancies, especially those that occur due to the lapses in judgment that often occur during intoxication.

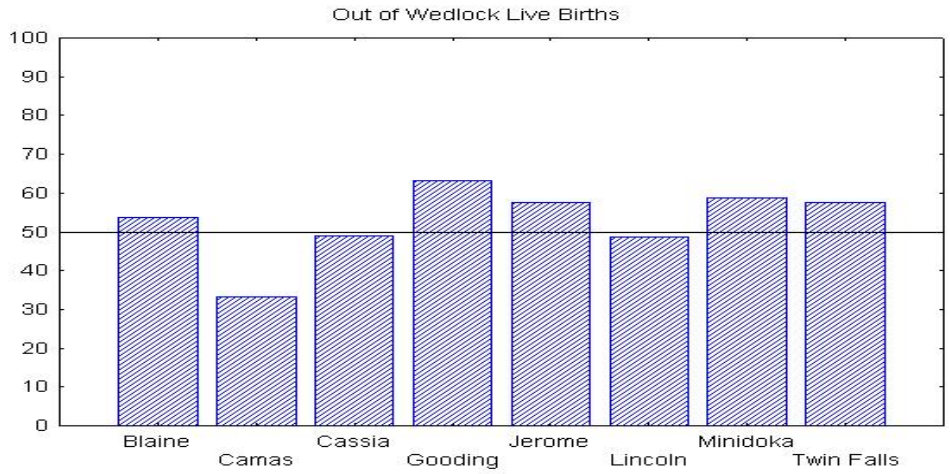

Figure 10. Youth alcohol use is positively correlated with births out of wedlock. As reported youth alcohol use increased, the number of births out of wedlock also increased in 2006.

Child Abuse and Protection Referrals – The relationship between intoxication and domestic violence is very complex and difficult to address from a substance abuse prevention perspective. While substance abuse prevention programs can't directly address the underlying causes or the effects of domestic violence, a substance abuse prevention program could be used as part of a comprehensive case plan for youth victims or witnesses of domestic violence to reduce the perception that drugs, alcohol and violence are normal, acceptable behavior.

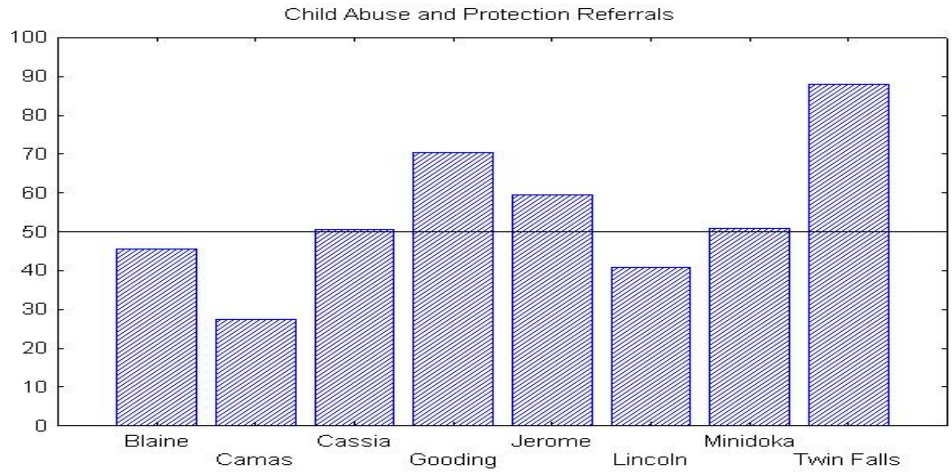

Figure 11. Youth reported alcohol use is positively correlated with the number of child abuse and protection referrals in a county. Youth report more 30-day alcohol consumption in areas where there are higher reports of child abuse and protection referrals.

Births to Mothers Who Smoke – Research has identified a strong relationship between women who smoked while pregnant and a wide variety of social and psychological disorders in the eventual teen, including an increased risk for substance abuse. In addition to substance abuse, other problems associated with pregnant smoking are attention deficit disorders, hyperactivity, depression, anxiety, antisocial and other conduct disorders, criminal and deviant behaviors, psychological disorders, and an increased arrest rate. Whether the mechanism is genetic, fetal, environmental, or a combination of all three has not yet been determined.

Substance abuse prevention programs that focus on social skills, anger management, conflict resolution etc., could help with conduct, social and legal issues. Prevention programs that include problem identification and referral could refer youth with psychological or psychiatric problems to therapists so that appropriate treatment begins as early as possible. And finally, while beyond the normal scope of substance abuse prevention, smoking cessation classes and prenatal health education could reduce the number of children affected by women who smoke while pregnant.

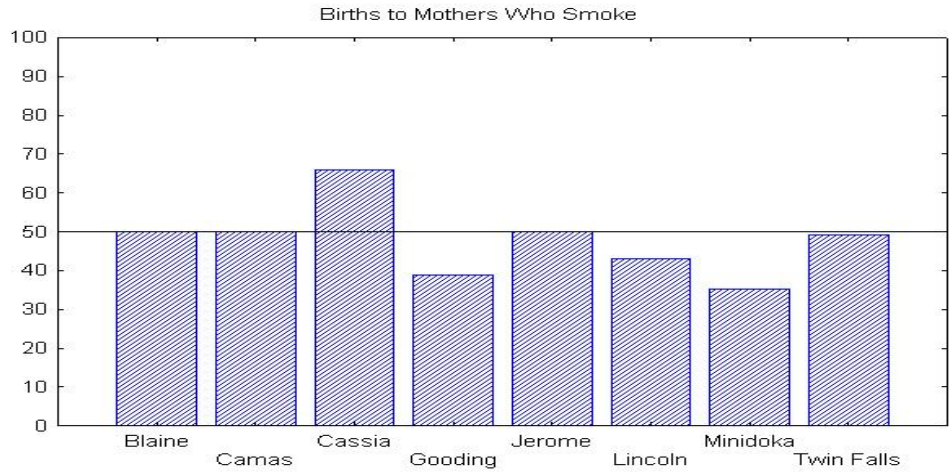

Figure 12. There is a positive correlation between mothers who smoke while pregnant and a number of social, conduct and psychological disorders in their

children. Youth in counties where more women smoked while pregnant report more alcohol use.

School Factors

At the state level, the following school related variables correlated significantly with youth reported alcohol use based on the 2006 SUSSCS data. The following figures show the relative standings of each county in the region for these factors, compared to the state average of 50 and to the other counties in the region.

- School Respect
- Student Violence Indicators
- Average Daily School Attendance

School Respect – School respect refers to student perception that of honesty and respect shown to the students by the school, as well as between students. In Idaho, school respect had a negative correlation with youth reported alcohol use. Where students reported higher levels of perceived respect, they also reported less alcohol use. Substance abuse prevention initiatives that address the quality of the school climate can impact the perception of respect, which can increase student attachment to the school. Staying in school and doing well is one of the strongest protective factors against substance use for youth.

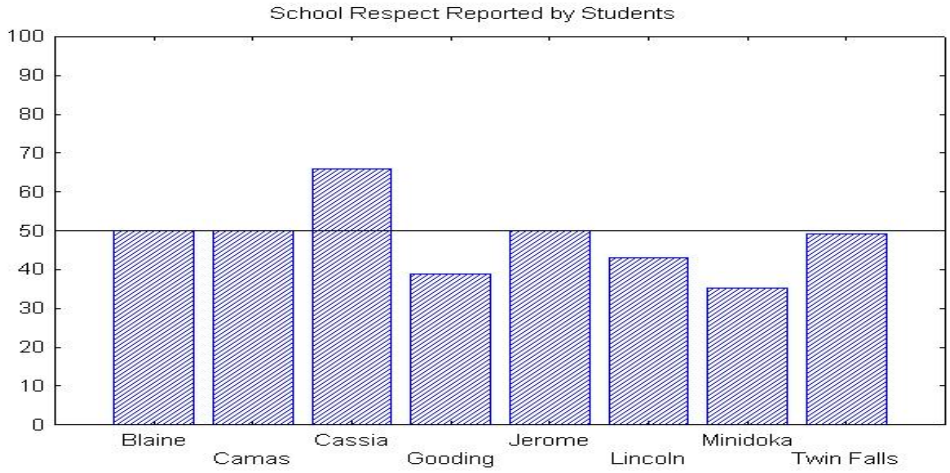

Figure 13. Youth perception of school respect for students is negatively correlated with reported alcohol use. As perceived school respect increased, youth reported alcohol use decreased in 2006.

Student Violence Indicators – The impact of school and community violence can be addressed through a number of initiatives. Substance abuse prevention programs that address character education, social skills, bullying, conflict resolution and anger management can contribute to efforts to reduce the perceived and actual violence within a school or community.

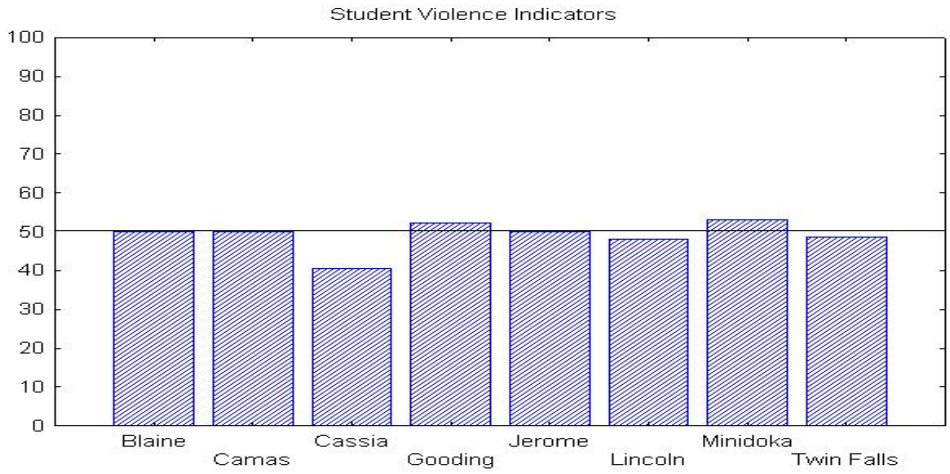

Figure 14. Student perception of violence in the school and community is positively correlated with reported alcohol use. Higher levels of perceived violence were associated with higher alcohol use rates among youth in 2006.

Average Daily School Attendance – One of the strongest protective factors against substance abuse and juvenile delinquency is staying in school through the 12th grade. Teens that make it through their high school years with little involvement in substance use are far less likely to have lifelong problems with drugs and alcohol. Remaining in school through the 12th grade is one of the best protective factors to help youth past this period where serious addiction is most likely to begin. In addition, youth that are in the comparably safe and supervised school environment have less opportunity for alcohol, tobacco, drug, gang and other forms of delinquency to occur. Prevention programs that help youth succeed at school; learn the value of education; or that work to improve the school-student relationship can all play a role in reducing the risk for alcohol and drug addiction.

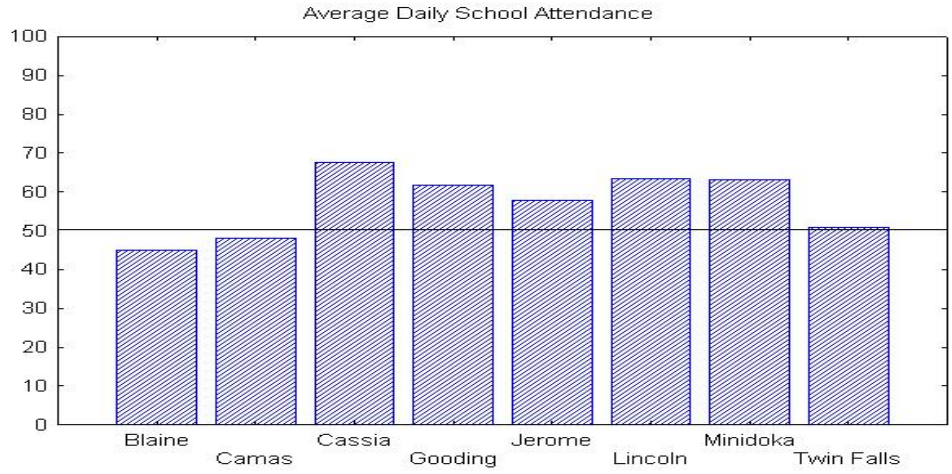

Figure 15. Regular school attendance is negatively correlated with youth alcohol use. Students reported less alcohol use in schools with higher average daily attendance rates.

Community Factors

At the state level, the community based factors below were found to be correlated with current youth alcohol use. The following figures show the relative position of each county in the region for these factors, compared to the state average of 50 and to each other. The following pages show the position of the counties for each of the community factors below.

- Presence of Retail Alcohol
- Observed Weapon or Experienced Victimization with a Weapon
- Fatal Collisions Involving an Impaired Driver
- County Birth Rate
- Unemployment Rate
- Children Under 6 Receiving Medicaid

Presence of Retail Alcohol – Alcohol availability is related to the rate at which youth report alcohol use. Where there is little access to alcohol, lower use rates are reported. The impact of alcohol availability can be addressed through social norming with youth and parents, server training and monitoring of sales to minors.

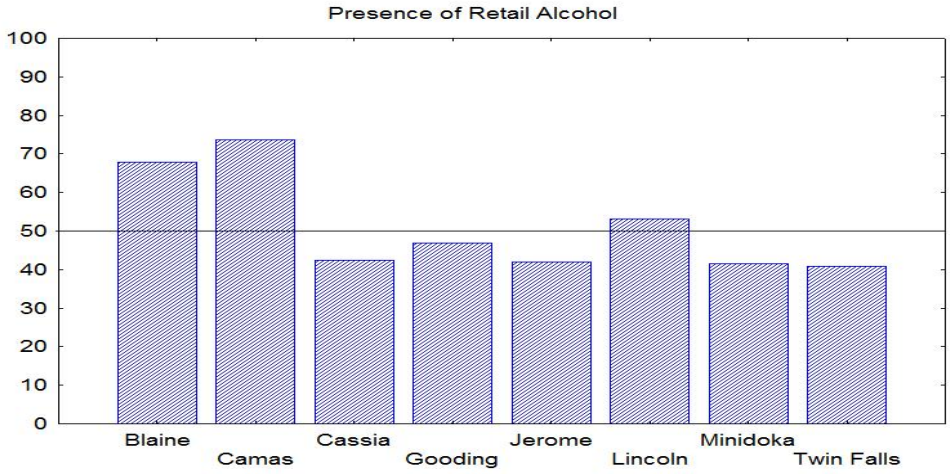

Figure 16. The presence of retail alcohol reflects the general availability of alcohol in a county. When more alcohol was available in a county, the youth reported more alcohol use in 2006.

Observed Weapon or Experienced Victimization with a Weapon – The prevalence of weapons and bullying within a school or community needs to be addressed from numerous perspectives. Substance abuse prevention programs that address character education, social skills, bullying, conflict resolution and anger management can contribute to the efforts to reduce interpersonal violence.

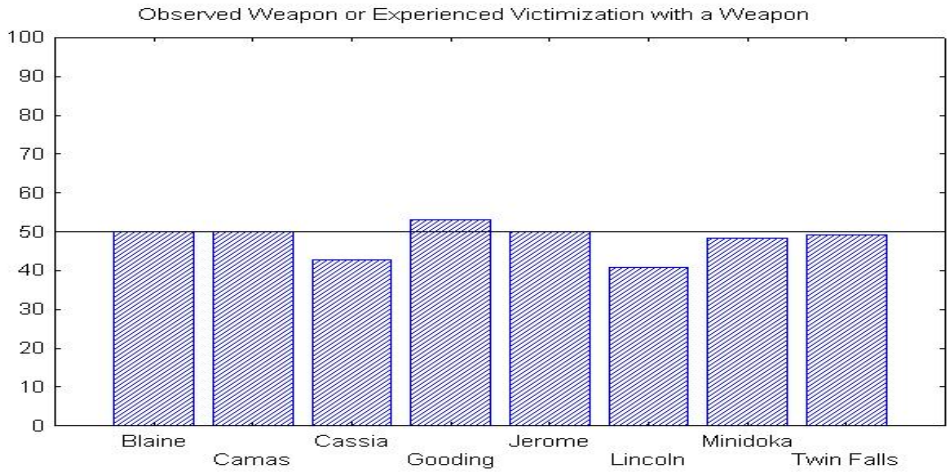

Figure 17. Seeing weapons at school or being victimized with a weapon were positively correlated with alcohol use in 2006. Students in areas with higher reported weapon-related victimization also reported higher levels of alcohol use.

Fatal and Injury Collisions Involving an Impaired Driver – Idaho youth contributed to more than 7% of all impaired vehicle collisions in 2006, according to Idaho Transportation Department data. Although fatal collisions overall decreased from 2005, fatalities in which an impaired driver was involved increased by 12% in 2006. Students from communities that have a higher frequency of impaired fatal collisions report more alcohol use than students from areas with fewer impaired fatal collisions. Community efforts to reduce youth access to alcohol and to raise parental awareness about the hazards of youth alcohol use can reduce youth involvement in fatal impaired driver accidents.

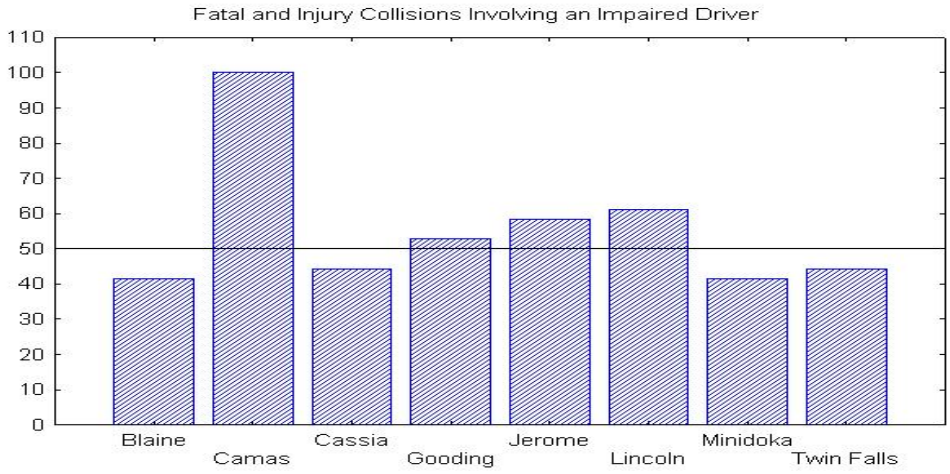

Figure 18. Collisions that result in a fatality while a driver is under the influence are positively correlated with youth alcohol use. Students reported more alcohol use in counties with more impaired fatal collisions in 2006.

County Birth Rate – Youth alcohol use was found to have a strong relationship with the county birth rate. Population birth rates are not generally associated with youth alcohol use. While it is tempting to offer hypotheses about how this factor may be related to youth alcohol use, it is more likely that there are other, unknown factors that shape this relationship. Further research is needed to identify the underlying patterns and determine if they are amenable to change from a substance abuse prevention model.

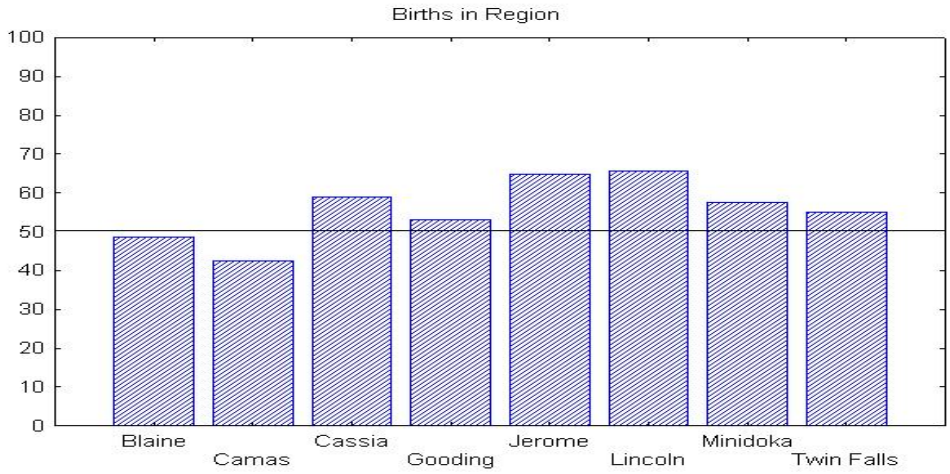

Figure 19. There is a strong negative relationship between births and alcohol use. Lower population birth rates were found to be associated with higher youth reported alcohol use rates in 2006.

Unemployment Rate – Financial stressors such as loss of income and poverty have historically been strong predictors of alcohol use. Students from Idaho counties with higher unemployment rates report more alcohol use than students from less impacted counties. While substance abuse programs cannot generally impact local economic factors, after school programs and teen centers can support community and societal attachment, provide a safe haven, offer tutoring and mentoring, and supplement or provide good nutrition.

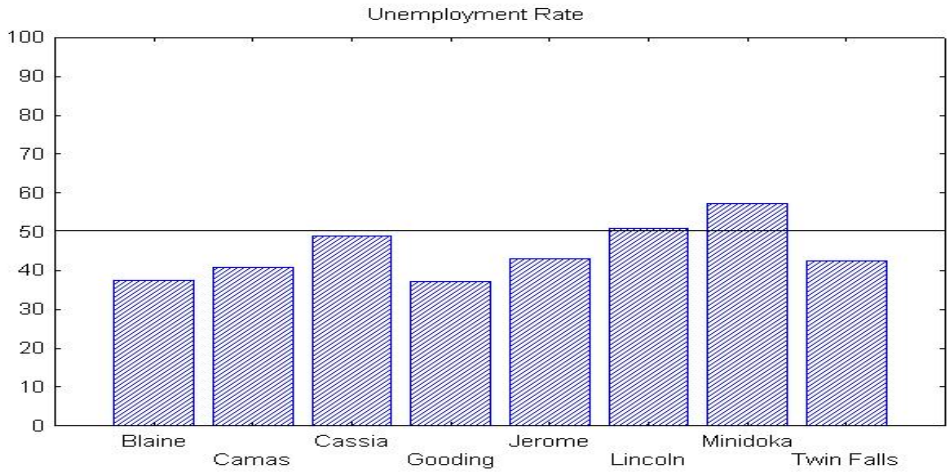

Figure 20. Unemployment rates are positively correlated with youth alcohol use. Students reported more alcohol use in counties with higher unemployment rates in 2006.

Children Under Age 6 Receiving Medicaid – The number of people receiving public assistance can serve as an indicator of the socioeconomic status. In this analysis, the variable "Children Under Age 6 Receiving Medicaid" was positively correlated with youth reported alcohol consumption. However, it is a common misperception that alcohol and substance use are more common among economically disadvantaged people. Alcohol and other drug use occur with roughly the same frequency at all socioeconomic strata.

Community based support programs, including a substance abuse prevention component, can help supplement the nutritional, scholastic, social and guidance needs of children from economically depressed families and

communities. Substance abuse prevention programs may also have a direct role by lessening the impact of adult substance use in response to economic distress on children.

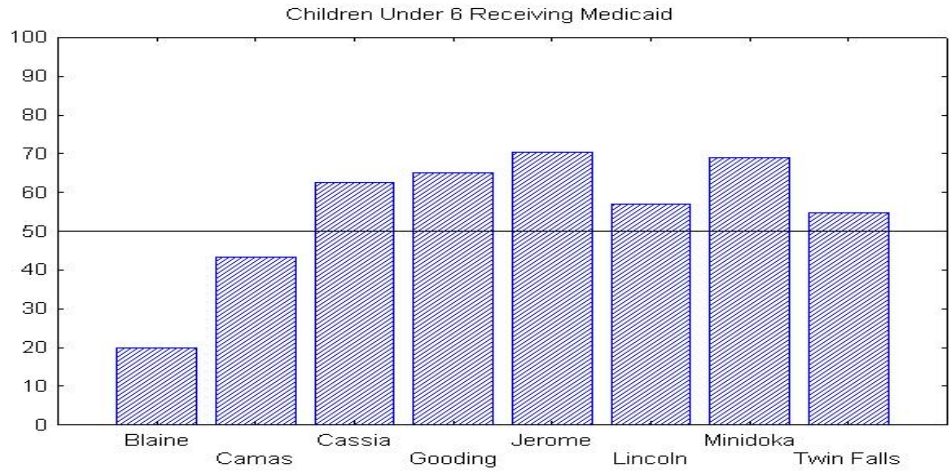

Figure 21. The number of Children Under Age 6 Receiving Medicaid is positively correlated with the number of teens who report alcohol use. The youth report more alcohol use in areas where there is a greater need for public assistance.